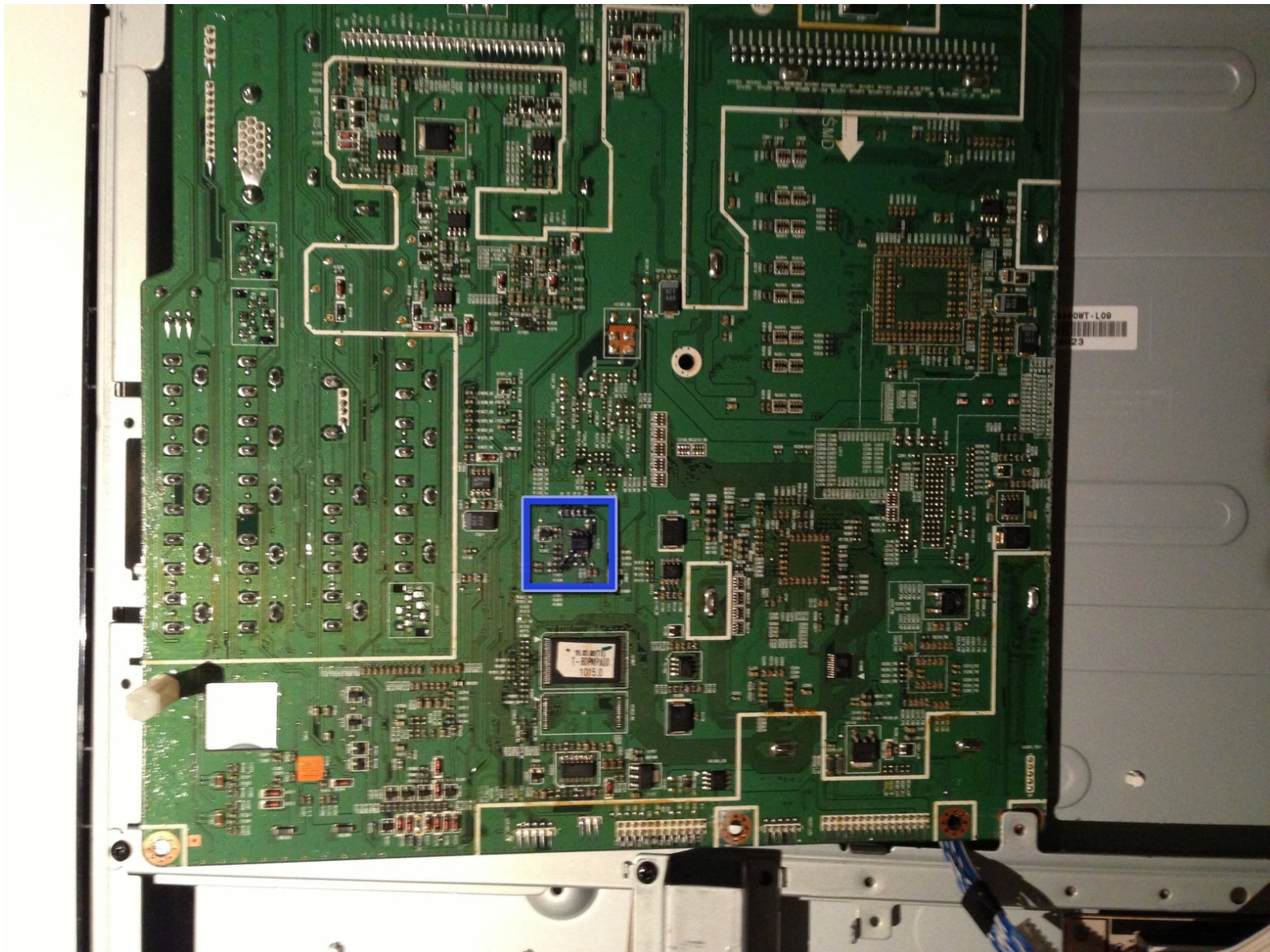




Samsung LA40R81BD 40in LCD TV Main Board EEPROM Replacement

If your Samsung TV has power problems, cycling, slow start up, clicking relay or similar and replacing the electrolytic capacitors did not resolve the problem then this is the next step.

Written By: Richdave



INTRODUCTION

This is not for the faint hearted and assumes you are capable of performing surface mounted component removal and installation. **If you don't have the necessary skills and tools you may well do more harm than good!**

You will be able to remove the main board and locate the likely faulty EEPROM. This guide is accurate for the LA40R81BD model however there are many similar models that experience similar issues so you may find it useful in repairing other model Samsung TV's



TOOLS:

- [Phillips #2 Screwdriver](#) (1)
- [Soldering Station](#) (1)
- [Desoldering Braid](#) (1)
- [Tweezers](#) (1)
- [Solder](#) (1)



PARTS:

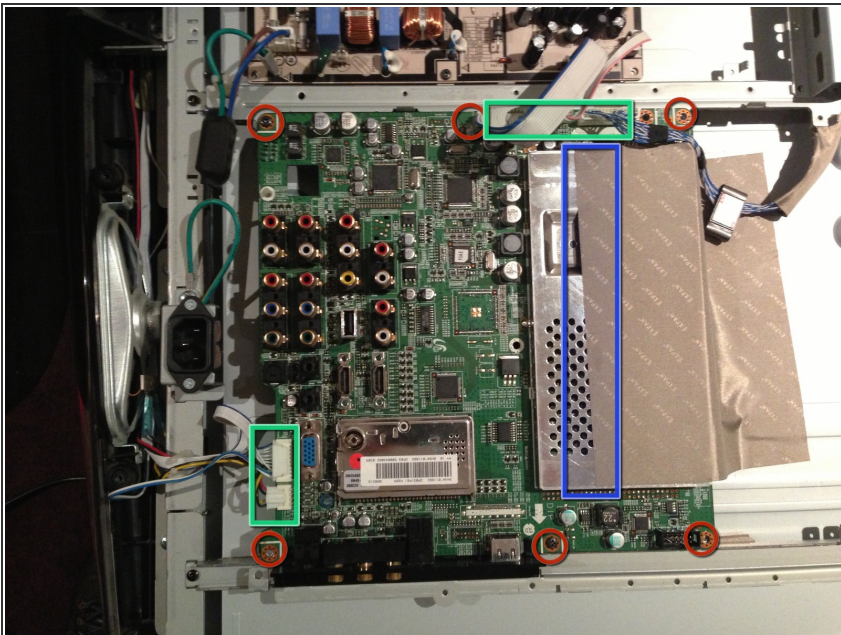
- [24C256 Surface Mount 256K EEPROM](#) (1)

Step 1 — Rear Cover



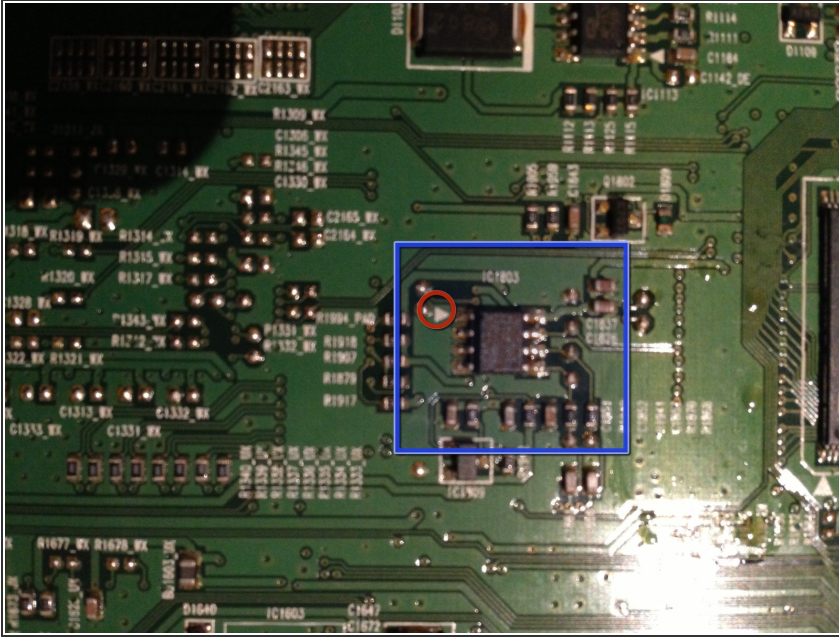
- ⚠ Unplug power cable and all AV cables from rear of TV and carefully lay TV face down on a clean flat working surface ensuring that you don't damage the LCD screen.
- Using a Philips driver remove the 18 screws from the rear panel.
- Gently lift the rear cover off the TV. You may need to wiggle the cover a little however there are no clips holding the cover on so it should come off easily if you have fully unscrewed all 18 screws.

Step 2 — Main Board



- Gently peel away the conductive fabric from the metal cover on the board
- Remove 5 connectors from the board
- Remove 6 screws from the perimeter of the board.
- Lift the main board away from the chassis ensuring you don't snag or catch any of the cables.

Step 3 — Replacing faulty EEPROM on main board (Clicking relay symptom part 2)



- Turn the main board over to expose the side that was facing the chassis and locate IC1803 (24C256 integrated circuit).


⚠ Carefully remove the old EEPROM being careful not to damage the copper pads or tracks on the board

- Use solderwick to carefully clean the pads where the old EEPROM was mounted
- Install the new EEPROM ensuring you orient pin 1 of the new device with the correct location on the board.

ⓘ I used an [AT24C256C-SSHL-B 8SOIC](#) integrated circuit. There are a number of compatible devices but be sure to get the correct lead spacing to fit the board.

⚠ Check the solder joints with a magnifying glass to ensure there are no bridges between the EEPROM pins before you reassemble and power up the TV

ⓘ The IC 1803 designation and location on the board is specific to the LA40R81BD model TV.

 When you power up the TV it may cycle a few times before turning on normally. This is due to the EEPROM being blank and default data being written to it. This is normal. You will need to reset all customised parameters and the date/time in the main menu.

To reassemble your device, follow these instructions in reverse order.

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